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Minoru Ito

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EXAMINER

YANG, JIE

ART UNIT

PAPER NUMBER

1793

MAIL DATE

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03/23/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,660	Applicant(s) ITO ET AL.	
	Examiner JIE YANG	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/2/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-4 have been amended; claim 5 is cancelled; and claims 1-4 remain for examination.

Status of the Previous Rejection

The previous rejection of claims 1 and 3-5 under 35 U.S.C. 103(a) as being unpatentable over Oda Naoki (JP 09003597, thereafter JP'597) is withdrawn in view of the amendment/remarks filed on 12/23/2009.

The previous rejection of claim 2 under 35 U.S.C. 103(a) as being unpatentable over JP'597 in view of Kojima et al (EP 1221493 A1, thereafter EP'493) is withdrawn in view of the amendment/remarks filed on 12/23/2009.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito Minoru et al (JP 2003-313628 A, thereafter JP'628).

JP'628 is applied to claims 1-4 for the same reason as stated in the previous office action marked 10/14/2009.

Regarding the newly amended features in the instant claims, JP'628 teaches adding 0.005 to 0.07wt%Al and 0.005-0.1 wt%Nb in the steel alloy (abstract, table 1, and claims 1-3 of JP'628), which overlap the 0.012-0.040wt%Al and 0.003-0.010wt%Nb as recited in the instant claim 1. In the case where the claimed ranges overlap or lie inside ranges disclosed by the prior art, a prima facie case of obviousness exists. See MPEP 2144.05. Regarding the equation [1] in the instant claim, as pointed out in the previous office action marked 10/14/2009, the equation [1] is fully depends on the alloy's compositions, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, In re Cooper and Foley 1943 C.D.357, 553 O.G.177; 57 USPQ 117, Taklatwalla v.Marburg. 620 O.G.685, 1949 C.D.77, and In re Pilling, 403 O.G.513, 44 F(2) 878, 1931 C.D.75. In the instant case, in the absence of evidence to the contrary, the selection of the proportions of elements: Ni, Mn, C, Cr, Mo, V, and Cu from JP'628 in order to meet the claimed equation would appear to require no more than routine investigation by those ordinary skilled in the art. In re Austin, et al., 149 USPQ 685, 688. The Examiner further note that if choosing the sample number 1 from the table 1 of JP'628 for calculation, sample 1 has major composition ranges within or close to the claimed composition

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ranges, the calculated C_{eq} is about 0.37, the calculated Ni/Mn is about 1.02, and the sample 1 meets the requirement of equation [1].

Regarding the newly added features of the heat input welding of more than 20kJ/mm and thickness of steel plate at least 50mm in the instant claims 1-4, JP'628 teaches applying the heat input welding of more than 410kJ/cm² and thickness of steel plate of 70mm (Paragraph [0079] of JP'628), which are within the claimed ranges.

Regarding the "consisting essentially of" language in the instant claims, the transitional language "consisting essentially of" is constructed as equivalent to "comprising." See, e.g., PPG, 156 F.3d at 1355, 48 USPQ2d at 1355. If an applicant contends that additional steps or materials in the prior art are excluded by the recitation of "consisting essentially of," applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. In re De Lajarte, 337 F.2d 870, 143 USPQ 256 (CCPA 1964). See MPEP 2111.03. In the instant case, the applicant has not shown that the introduction of the additional alloy elements of the cited

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prior art would materially change the characteristics of applicant's invention.

Response to Arguments

Applicant's arguments filed 12/23/2009 have been fully considered but they are not persuasive. Regarding the arguments related to the amended features in the instant claims, the Examiner's position is stated as above.

Regarding the rejection for claims 1-4 over Ito Minoru et al (JP 2003-313628 A, thereafter JP'628), the Applicant argues that JP'628 fails to provide any reason for one of ordinary skill in the art to make and/or use the presently claimed high-strength thick steel plate, the present claims are not obvious over JP'628 because (1) HAZ toughness is improved in the presently claimed high-strength thick steel plate in a manner that is patentable distinct from that disclose in JP'628; (2) the sample 6 of JP'628 has Ceq 0.47 which large than claimed $0.36 \leq Ceq \leq 0.42$ in the insatnt claims. (3) the toughness value is not obtained with the steel disclosed in JP'628.

In response: regarding the argument (1), as discussed in the rejection for the instant claims above and refer to the previous office action marked 10/14/2009, JP'628 teaches steel plate with the similar alloy compositions with the same thickness and heat input to improve the same toughness in a HAZ as recited in the instant invention. In the case where the claimed ranges overlap or lie inside ranges disclosed by the prior art, a prima facie case of obviousness exists. See MPEP 2144.05. Therefore, a similar

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manner for improving the toughness as recited in the instant invention would highly expected in the steel plate of JP'628. MPEP 2112.01.

Regarding the equation [1] in the argument (2), the Applicant correctly pointed out the C_{eq} value of sample 6 is outside the claimed C_{eq} value. However, the prior arts ought to be taken as a whole, and should not in anyway be limited to the lone examples provided in the references. It has been well settled in many court decisions that when a claimed range of the same element in a prior art composition, a prima facie case of obviousness is established since it would have been obvious to one having ordinary skill in the art to construct a composition comprising said element having a concentration selected within the disclosed range. Furthermore, the Examiner notes that sample 1 from the table 1 of JP'628 meets the requirement of equation [1].

Regarding the arguemnt (3), there is no specifical toughness value being claimed in the insatnt claims. JP'628 teaches a steel product having superior toughness in a HAZ zone (Abstract of JP'628), which reads on the toughness improvement in the instant inevtntion.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-2701884. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

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JY

/Roy King/

Supervisory Patent Examiner, Art Unit 1793